

WHAT IS CLAIMED IS:

1           1. A method for protecting a target circuit, the method comprising:  
2           detecting power from a source of power;  
3           coupling the power to the target circuit in a gradual manner;  
4           detecting noise components in the power; and  
5           varying the amount of power delivered to the target circuit in response to the  
6 noise component.

1           2. The method of claim 1 wherein the step of coupling includes  
2 controlling the conductivity of a transistor device, the transistor device having series-  
3 connection between the source of power and the target circuit.

1           3. The method of claim 1 wherein the step of coupling includes  
2 controlling the conductivity of a transistor device, the transistor device having series-  
3 connection between the source of power and the target circuit.

1           4. A method for protecting a target circuit, the method comprising:  
2           detecting power from a source of power;  
3           coupling the power to the target circuit in a gradual manner;  
4           detecting when a current supplied to the target circuit exceeds a threshold; and  
5           decoupling the power in response to detecting that the current supplied to the  
6 target circuit exceeds a threshold.

1           5. A circuit comprising:  
2           a switch configured to couple a target circuit with a source of power;  
3           a first detector configured to detect power provided by the source of power,  
4 the first detector operatively coupled with the switch, wherein the switch closes responsive to  
5 the first detector; and  
6           a second detector configured to detect noise in the power, the second detector  
7 operatively coupled to the switch, wherein a conductivity of the switch varies responsive to  
8 the second detector.

1           6. The circuit of claim 5 wherein the second detector couples between the  
2 source of power source and a gate of the switch.

1                   7.       The circuit of claim 5 further including a positive terminal and a  
2 negative terminal, wherein the switch is a transistor device having a gate, a source, and a  
3 drain, wherein the second detector comprises:

4                   a bias voltage source;

5                   an operational amplifier having:

6                   an inverting input coupled with the positive terminal and coupled with  
7 the bias voltage source;

8                   a non-inverting input coupled with a negative terminal; and

9                   an output coupled to the gate of the switch.

1                   8.       The circuit of claim 7 wherein the output of the operational amplifier  
2 couples with the first detector.

1                   9.       The circuit of claim 7 wherein the bias voltage source coupled with the  
2 first detector.

1                   10.      The circuit of claim 9 wherein the bias voltage source is a voltage  
2 divider.